



## US Route 3/Germanna Highway Safety Assessment

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**Culpeper District**

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# Agenda

- Overview
- Findings
- Recommendations
- Implementation Plan

CULPEPER COUNTY  
ROUTE 3  
Safety Assessment Review Area Map  
Fm: 0.30 Miles West of Route 600 (W)  
To: 0.21 Miles East of Route 750  
Distance: 4.62 miles

North



Not to scale



# Overview

## Why this assessment?

- VDOT reviews all roads after every fatal crash to see if we can make them safer

## Does VDOT look at crashes before they occur?

- Annual Top 10 Safety List
- STARS Program (Affordable Roadway Solutions)
  - Currently Routes 53, 20 and 28 under study

## How do we improve traffic safety?

- 3E's (Engineering, Enforcement, Education)
- Highway Safety Campaign

# Findings/Assessment

## Section Characteristics

- Two 11 ft travel lanes with 4-8 ft variable shoulders
- 5 unsignalized intersections
- 32 private entrances
- Level Terrain
- 4.62 miles long segment with 1100 ft sweeping curve

## Traffic Volume

- Route 3/Germanna Hwy (2-lane section) is 7,750 veh/day
- 4% Trucks

## Stopping Sight Distance

- Meets standard on Route 3 and all intersections

## Westbound near Route 739 intersection





## Look EAST from Route 739 intersection



## Findings/Assessment (cont.)

### Speed Limit

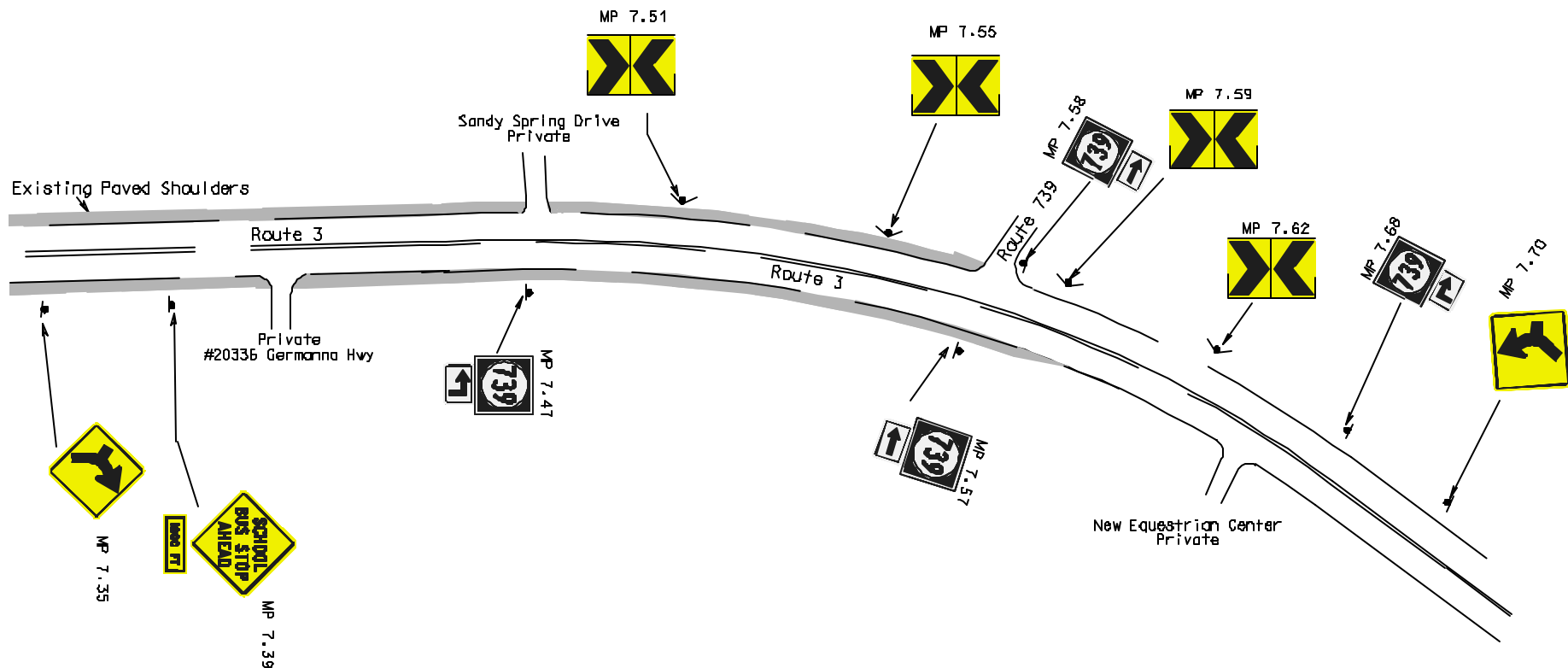
- 55 mph
- 60 mph design speed

### Speed Samples

- 85<sup>th</sup> percentile is 64 mph
- 50<sup>th</sup> percentile is 58 mph



**Culpeper County**  
**Route 3**  
**Fm: 0.13 mile west of Rte. 739 (MP 7.44)**  
**To: 0.13 mile east of Rte. 739 (MP 7.70)**  
**Length : 0.26 miles**



\* All Signing Shown are In Place  
 \* Not to Scale

## Findings/Assessment (cont.)

### Crash Data (2004 to 2009)

- Crashes: 85
- Injury crashes: 37
- Fatal crashes: 6

### Crash Types on Section

- 28% Fixed object (24)
- 24% Weather related (20)
- 19% Deer/Animal (16)

### Crashes on Curve

- 14 crashes
- 4 fatal (3 head-on, 1 side swipe)
- 6 crashes during poor light conditions

## Short-Term Recommendations

### **1. Install larger CURVE Warning Signs**

- Get motorist attention

### **2. Install Chevrons on outside of curve**

- Get motorist attention

### **3. Install Transverse Rumble Strips into curve**

- Get motorist attention

### **4. Install 50 mph Advisory Speed signs into curve**

- Slow motorist down thru curve

### **5. Add Centerline plowable markers in 2-lane section**

- Help guide motorist along during poor light conditions

## Short Term Recommendations (cont.)

### **6. Add STOP Bars on intersecting roadways**

- Encourage motorist to stop and look

### **7. Adjust passing zones in 2-lane section**

- Reduce conflicts near intersections
- Some passing zones remain

### **8. Install larger 55 mph speed limit signs in 2-lane section**

- Get motorist attention

## Long-Term Recommendations

### **9. Widen shoulders, wider/more reflective markings, and flex posts along curve**

- Improve tracking through curve
- Improve recovery area for driver error

### **10. Double row plowable markers and centerline rumble strips along curve**

- Improve tracking through curve in poor light conditions

### **11. Upgrade pavement markings to Epoxy along 2-lane Section**

- Improve performance in poor light conditions





# Implementation Plan

Improvement	CURVE/ SECTION	SHORT/LONG	Estimated completion time
1. Larger CURVE Warning Signs	CURVE	SHORT	2 weeks
2. Install Chevrons on outside of curve	CURVE	SHORT	2 weeks
3. Install transverse rumble strips	CURVE	SHORT	2 weeks
4. Install 50 mph Advisory Speed signs	CURVE	SHORT	2 weeks
5. Add centerline snow plowable markers	SECTION	SHORT	30 days (Contract)
6. Add STOP bars	SECTION	SHORT	1 week

# Implementation Plan

Improvement	CURVE/ SECTION	SHORT/LONG	Estimated completion time
7. Adjust passing zones	SECTION	SHORT	2 weeks
8. Larger 55 mph speed limit signs	SECTION	SHORT	2 weeks
9. Widen shoulder, wider markings and flex posts along curve	CURVE	LONG	3 months
10. Double row plowable markers and centerline rumble strips	CURVE	LONG	30 days, after paving
11. Epoxy pavement markings	SECTION	LONG	30 days

## Questions

**Copies of Safety Assessment available May 19 on  
VDOT website**

**- [www.vdot.virginia.gov](http://www.vdot.virginia.gov)**